

holder (12a). The slide member (44) slides along an insertion direction of an ink cartridge (23) with respect to the cartridge holder (12a) between a first slide position and a second slide position. When the slide member (44) is located at the second slide position, the lock claw member (49) is located at a first rotation position. At this time, the ink cartridge (23) is incapable of being removed from the cartridge holder (12a). When the slide member (44) moves to the first slide position from the second slide position, the lock claw member (49) is located at the second rotation position. At this time, the ink cartridge (23) is removable from the cartridge holder (12a).

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A liquid ejection apparatus comprising: a cartridge holder, and a liquid cartridge detachably mounted on the cartridge holder and storing liquid, and ejecting the liquid in the liquid cartridge attached to the cartridge holder toward a target, ~~characterized in that~~

~~the liquid injection apparatus further comprises~~ a slide member and a rotating member, wherein:

said slide member is slidably supported at said cartridge holder, the slide member slides along an insertion direction of the liquid cartridge between a first position and a second position, and the insertion direction is a direction in which the liquid cartridge is inserted into the cartridge holder when the liquid cartridge is attached to the cartridge holder, and

said rotating member is rotatably supported at said cartridge holder, rotation of the rotating member is linked to slide of said slide member, and when the slide member moves to the second position from the first position, the rotating member displaces so as not to allow removal of the liquid cartridge from the cartridge holder, and when the slide member moves to the first position from the second position, the rotating member displaces to allow removal of the liquid cartridge from the cartridge holder.

2. (currently amended) A liquid ejection apparatus comprising: a liquid ejection head for ejecting liquid toward a target, a liquid cartridge for storing said liquid, a liquid passage for connecting said liquid injection head and said liquid cartridge, and a cartridge holder for housing said liquid cartridge, ~~characterized in that~~

said cartridge holder ~~includes~~ including:

- a slide member slidable along an insertion direction of said liquid cartridge between a first slide position and a second slide position, with the insertion direction being a direction in which the liquid cartridge is inserted into the cartridge holder when the liquid cartridge is attached to the cartridge holder;

a lock claw member supported at said slide member rotatably between a first rotation position and a second rotation position; and

a rib abutting said lock claw member,

said rib causing said lock claw member to be located at the first rotation position when said slide member is located at said first slide position, and causing said lock claw member to be located at the second rotation position when said slide member is located at said second slide position, and

said liquid cartridge including an engaging portion switching between a state in which the engaging portion is engaged with said lock claw member and a state in which the

engaging portion is not engaged with said lock claw member, wherein said engaging portion is not engaged with said lock claw member when said lock claw member is located at said first rotation position, and is engaged with said lock claw member when said lock claw member is located at said second rotation position.

3. (currently amended) The liquid ejection apparatus according to claim 2, ~~characterized in that~~

wherein said cartridge holder includes

biasing means which biases said slide member to displace to said first slide position, and

fixing means which fixes said slide member to said second slide position.

4. (currently amended) The liquid ejection apparatus according to claim 3, ~~characterized in that~~

wherein said fixing means includes

a latch groove provided in said slide member, and

a latch claw member including a claw member engaging in said latch groove, and

said latch groove includes

a first groove portion in which said claw member engages when said slide member is located at said first slide position,

a second groove portion in which said claw member engages when said slide member is located at said second slide position, with movement of said slide member to said first slide position being restrained when said claw member engages in the second groove portion,

a third groove portion which guides said claw member from said first groove portion to said second groove portion when said slide member moves from said first slide position to said second slide position, and

a fourth groove portion which guides said claw member from said second groove portion to said first groove portion

when said slide member moves from said second slide position to said first slide position.

5. (currently amended) The liquid ejection apparatus according to claim 4, ~~characterized in that~~ wherein said fourth groove portion is formed to guide said claw member from said second groove portion to said first groove portion when said slide member slides in an insertion direction of said liquid cartridge from said second slide position.

6. (currently amended) The liquid ejection apparatus according to ~~any one of claims claim 2 to 5, characterized in that~~ wherein said engaging portion is a recessed portion.

7. (currently amended) The liquid ejection apparatus according to ~~any one of claims claim 2 to 6, characterized in that~~ wherein

said liquid passage includes a liquid supply needle connected to said liquid cartridge,

said liquid supply needle is movably inserted through said slide member, and said slide member includes absorbing means integrated with the slide member to surround said liquid supply needle and absorbs liquid leakage.

8. (currently amended) The liquid ejection apparatus according to ~~any one of claims claim 2 to 7, characterized in that~~ wherein.

said liquid cartridge includes a liquid housing part for storing said liquid, a liquid case for housing said liquid housing part, and a communication hole for introducing air into a gap between said liquid housing part and said liquid case,

said cartridge holder includes an air lead-in tube connected to said communication hole of the liquid cartridge housed in the cartridge holder, and

said slide member includes bending restraining means integrated with the slide member and restrains bending of said air introducing tube.

9. (currently amended) A liquid ejection apparatus comprising: a liquid ejection head for ejecting liquid toward a target, a liquid cartridge for storing said liquid, a liquid passage for connecting said liquid ejection head and said liquid cartridge, and a cartridge holder for housing said liquid cartridge, ~~characterized in that~~

~~the liquid ejection apparatus further comprises~~ a slide member and a rotating member, wherein:

said slide member is slidably supported at said cartridge holder, the slide member is slidable along an insertion direction of said liquid cartridge between a first position and a second position, and the insertion direction is a direction in which the liquid cartridge is inserted into the cartridge holder when the liquid cartridge is attached to the cartridge holder, and

said rotating member is rotatably supported at said cartridge holder, rotation of the rotating member is linked to slide of said slide member, and when said slide member moves to the second position from the first position, the rotating member displaces so as to connect said liquid cartridge to said slide member, and when said slide member moves to the first position from the second position, the rotating member displaces to release connection of said liquid cartridge to said slide member.

10. (currently amended) The liquid ejection apparatus according to claim 9, ~~characterized in that~~

~~the liquid ejection apparatus further comprises~~ comprising biasing means for biasing said slide member to said first position from said second position, in which movement of the slide member from the first position to the second

position is performed against the biasing force of said biasing means, and wherein

said rotating member includes an engaging member which switches between a state in which the engaging member engages with said liquid cartridge and a state in which the engaging member does not engage with said liquid cartridge in accordance with rotation of the rotating member.

11. (currently amended) The liquid ejection apparatus according to claim 10, ~~characterized in that~~ wherein

said slide member includes a guide groove,

said rotating member includes a claw member movable inside the guide groove along said guide groove, in which rotation of the rotating member is linked to movement of the claw member, and

said guide groove includes

a first groove portion in which said claw member engages when said slide member is located at said first position,

a second groove portion in which said claw member engages when said slide member is located at said second position, with movement of said slide member to said first position being restrained when said claw member engages in the second groove portion,

a third groove portion which guides said claw member from said first groove portion to said second groove portion when said slide member moves from said first position to said second position, and

a fourth groove portion which guides said claw member from said second groove portion to said first groove portion when said slide member moves from said second position to said first position.

12. (currently amended) The liquid ejection apparatus according to claim 11, ~~characterized in that~~ wherein said fourth groove portion is formed to guide said claw member from

said second groove portion to said first groove portion when said slide member slides in an insertion direction of said liquid cartridge from said second position.

13. (currently amended) The liquid ejection apparatus according to ~~any one of claims~~ claim 10 to 12, ~~characterized in that~~ wherein the engaging member, which is included by said rotating member, engages in a groove open at one side of an upper surface of said liquid cartridge, and connects said liquid cartridge and said slide member.

14. (currently amended) The liquid ejection apparatus according to claim 10 ~~any one of claims 9 to 13~~, ~~characterized in that~~ wherein said biasing means is first biasing means, the liquid ejection apparatus further comprises second biasing means for biasing said rotating member in one direction, and said rotating member rotates against biasing force of said second biasing means during movement of the slide member from the first position to the second position, and rotates while being biased by said second biasing means during movement of the slide member to the first position from the second position.

15. (currently amended) The liquid ejection apparatus according to ~~any one of claims~~ claim 9 to 14, ~~characterized in that~~

wherein said liquid passage includes a liquid supply needle connected to said liquid cartridge, and

said liquid supply needle is movably penetrated through said slide member, and said slide member includes liquid absorbing means integrated with the slide member to surround said liquid supply needle and absorbs liquid leakage.

16. (currently amended) The liquid ejection apparatus according to ~~any one of claims~~ claim 9 to 15, ~~characterized in that~~

that

wherein said liquid cartridge includes a communication hole, said cartridge holder includes an air lead-in tube connected to said communication hole of the liquid cartridge housed in the cartridge holder, and

said slide member includes bending restraining means integrated with the slide member and restrains bending of the air lead-in tube.

17. (currently amended) A liquid ejection apparatus comprising: a liquid ejection head for ejecting liquid toward a target, a liquid cartridge for storing said liquid, a liquid passage for connecting said liquid ejection head and said liquid cartridge, and a cartridge holder for housing said liquid cartridge, ~~characterized in that~~

~~the liquid ejection apparatus further comprises~~ a slide member slidably supported at said cartridge holder, and wherein the slide member slides along an insertion direction of said liquid cartridge between a first slide position and a second slide position following attachment and detachment of the liquid cartridge to and from the cartridge holder, and the insertion direction is a direction in which the liquid cartridge is inserted into the cartridge holder when the liquid cartridge is attached to the cartridge holder,

said liquid passage including a liquid supply needle that forms a connection portion to said liquid cartridge,

said cartridge holder including an air lead-in tube connected to said liquid cartridge, and

said slide member including a portion which guides said liquid supply needle and a part which guides a part of said air lead-in tube connected to the liquid cartridge.

18. (currently amended) The liquid ejection apparatus according to claim 17, ~~characterized by~~ further comprising biasing means for biasing said slide member in an opposite

direction from said insertion direction.

19. (currently amended) The liquid ejection apparatus according to claim 17 ~~or 18, characterized in that the liquid ejection apparatus~~ further ~~comprises~~ comprising a rotating member rotatably supported at said cartridge holder, in which rotation of the rotating member is linked to slide of said slide member, the rotating member displaces to a position that does not allow removal of the liquid cartridge from the cartridge holder when the slide member moves from the first slide position to the second slide position, and the rotating member displaces to a position that allows removal of the liquid cartridge from the cartridge holder when the slide member moves from the second slide position to the first slide position.

20. (currently amended) The liquid ejection apparatus according to claim 17 ~~or 18, characterized in that~~ wherein said cartridge holder includes

- a lock claw member supported at said slide member rotatably between the first rotation position and the second rotation position, and
- a rib which abuts said lock claw member,
- said rib causing said lock claw member to be located at the first rotation position when said slide member is located at said first slide position, and causing said lock claw member to be located at the second rotation position when said slide member is located at said second slide position, and
- said liquid cartridge includes an engaging portion which is switched between a state in which the engaging portion engages with said lock claw member and a state in which the engaging portion does not engage with said lock claw member, said engaging portion does not engage with said lock claw member when said lock claw member is located at said first rotation position, and said engaging portion engages with said

lock claw member when said lock claw member is located at said second rotation position.

21. (currently amended) The liquid ejection apparatus according to claim 17 ~~or 18, characterized in that~~ wherein the liquid ejection apparatus further comprises a rotating member rotatably supported at said cartridge holder, rotation of the rotating member is linked to slide of said slide member, the rotating member displaces so as to connect said liquid cartridge to said slide member when said slide member moves from the first slide position to the second slide position, and the rotating member displaces to release connection of said liquid cartridge to said slide member when said slide member moves from the second slide position to the first slide position.